

REMARKS

Reconsideration and reexamination of this application is respectfully requested. Claims 1 – 18 were originally in the case. Claims 1, 2 have been withdrawn - *claim 7 is cancelled*

The Office Action has rejected claims 3 – 18 under 35 U.S.C. 112 as based on a disclosure that is not enabling.

The Examiner states:

“Three out of four conditions said to be critical or essential to the practice of the invention but not included in the claims are not enabled in the disclosure.

The conditions necessary for performing the process most efficiently are not claimed including::

1. the water is very pure.
2. The water must first be treated (agitated) by mechanical or magnetic means
3. The acid is very pure and has a large dissociation constant.
4. The acid/water mixture must be agitated during dissociation of the acid.

The Applicant submits: On page 18, the specification states:

“the following four conditions are necessary for performing the process

MOST EFFICIENTLY”. This statement is different from the interpretation of the Examiner which states that the **STEPS ARE ESSENTIAL**

THE Examiner's interpretation implies that unless these conditions are met, the process will not work. In other words, by substituting ESSENTIAL for MOST EFFICIENTLY, the Examiner is attempting to force the Applicant to limit the claim to a scope that really could not be included in ANY chemical patent.

For example, if the Examiner insisted on the use of the word PURE in the claim, (as in pure water) then the Applicant would have to define concentration limits of purity in the specification and those limits would be included in the claim.

For example, if the limit of impurity were defined in the specification as being 0.0010 moles per liter, then an infringer could use water having an impurity of conc. of .0012 moles per liter with out infringing the claim.

In my twenty-five years of writing applications including chemical patents, my claims never included the term PURE WATER since anyone having skilled in the art, in practicing the enablement example, (according to his judgement) would use at least tap or distilled water instead of (e.g.) dirty water that he obtained from the gutter. The Applicant respectfully submits that the inclusion of the word PURE (being a guideline in the examples to one having skill in the art) is not necessary to define the limits of claim 3.

Common use of English is that MOST EFFICIENTLY (the applicant's statement) implies that the process will work under conditions of a range of agitation (which is what the claim says). It is also submitted that the Applicant's intended interpretation is the one that would be accepted by anyone having ordinary skill in the art of mixing chemicals.

To statement that agitation is essential (the Examiner's word) would require that there be a specific degree of agitation, less than which the process would not work at all.

In order to interpret claim 3 as the Examiner is trying to do, the Applicant would be forced to include a quantitative statement about mixing such as: the size of the container, the number of stirs per minute, the number of minutes, the size of the stirrer, the speed of the stirrer, etc. and imply that if these conditions are not met, then the process will not work at all.

The specification has included an in depth description of two examples as to how he practiced the invention. including his mixing procedure .along with a description of the mixing apparatus.

If the Law required such specific limitations in the claims on mixing in process patents, there would be no patent patents issued.

The acid is very pure

The examples disclose that reagent grade acid is used.

This does not imply that Industrial Grade acid could not be used although the specification implies that the use of reagent grade acid would be more

efficient than industrial grade. The Applicant submits that, to repeat all of his examples would be an overkill and unnecessary for demonstrating the invention. Therefore it is submitted that simply using the unmodified term "acid" in the claim is sufficiently supported by the specification.

The Examiner states:

It is unclear whether the same results would be obtained with another acid.

Only sulfuric acid is disclosed, however the claims are broader

The Applicant submits:

Claim 3 has been amended by substituting propionic with sulfuric.

The Examiner states:

In claim 12, wouldn't the solubility of the calcium compound decrease by the chilling since the specification discloses chilling of the oxidized calcium mixture

The Applicant submits: The calcium compound exhibits the property of reverse solubility meaning that solubility of the compound in solution

increases at the lower temperature. The statement in the specification and claim is correct as written

The Examiner writes:

Isn't the addition of the surfactant essential to be in claim 3 since the specification discloses such an addition and not as an option.

The Applicant submits:

The process discloses the addition of Ca compound (CaO . or Ca(OH)_2) to the sulfate solution inducing the formation of calcium sulfate which has a low solubility so that most all of the precipitated calcium sulfate can be filtered from solution. This filtered medium can be used to continue the process as described in the specification. However, the reaction will not be absolutely complete(100% calcium compound will not be removed and to that extent, the process will not be 100% efficient. By adding the surfactant as disclosed in claim 12, the removal of the small traces of Ca sulfate will

make the process even more efficient in generating the H₉O₄⁺. Therefore, it is correct to leave claim 3 as it stands since it is a method for generating H₉O₄⁺ and also including claim 12 (the addition of surfactant to claim 3, as a way of improving claim 3.

Regarding the Examiner's action in upholding the traversal----

The Examiner states that : “ the Applicant's argument is not persuasive because the prior art cited in the specification discloses that the compound would be formed and would have been short lived.

The Applicant submits:

The cited art was a theoretical paper, strictly hypothetical which hypothesized the possible existence of the molecule. Furthermore, the hypothetical life of the product was estimated to be nanoseconds. This means that if a method were discovered to produce the product, it would have the hypothetical structure and be short lived (nanoseconds)

The court has held that a product, that has a life of only a few nanoseconds, does not qualify as reduction to practice since there would be no use for such a short lived product. No such product has previously been made nor suggested in the paper.

In order to qualify as a valid prior art reference, a claim to a chemical compound has to satisfy an ENABLEMENT requirement to prove that the compound actually can be made and actually exists. The Enablement requirement is based on the statute stating that for an invention to be entitled to Patent rights, the invention must be NOVEL and USEFUL.

The prior art reference to $H_9O_4^+$, can lay no claim to being NOVEL or USEFUL since speculation that it could exist is hypothetical.

There is no such enablement support for the prior art. .

The Applicant has provided enablement support for his claim to the compound on the basis that he has succeeded in separating the substance (H_9O_4^+) from water and shown that the oily substance produced by his claimed method has different molecular properties than the water from which it was separated.

In further support of this conclusion----

One would not argue that evidence that salt and water withdrawn from an aqueous solution are two different compounds is provided by:

reducing the temperature of a saline solution to a temperature where the salt has precipitated out of water;

Filtering out the precipitated salt so that there are two separated constituents--- salt and water;

Measuring the mole fraction of chlorine and sodium to confirm the composition of the compound (filtrate) to be NaCl. with a freezing temperature that is different from the water from which it has been separated.

There is nothing in the prior art that demonstrates that H_9O_4^+ exists. The cited art suggests a hypothetical structure but no way of creating the structure. There is nothing in the prior art that demonstrates how to make it.

The Applicant has demonstrated that H9O4) can be prepared therefore satisfying the ENABLEMENT requirement for claiming the compound.

Therefore, the Applicant respectfully and urgently requests that Examiner reinsert the withdrawn claim back into the Application and examine the claim on its merits.

In view of the above, it is believed that the rejections under 35USC 112 have been overcome and that all remaining claims are in condition for allowance.

If the Examiner persists in requiring that the word "pure" and Mixing be added to the claims, as further conformance to the specification, the Applicant respectfully requests and interview with the Examiner as to amended of the claim that, in the Examiner's view, place the case in Allowance.

Otherwise, Allowance of all claims is respectfully solicited

Respectfully submitted,

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I certify that I have placed this document in an envelope addressed to the
Commissioner of Patents and deposited it with the U.S. Postal service.

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